

USPENSKIY, V.

Special navigation problems, special responsibility. Rech.  
transp. 23 no.7:13-14 J1 '64. (MIRA 17:10)

1. Nachal'nik Belomorsko-Onezhskogo parokhoztva.

USPENSKIY, V.A.

RT-147 (Hardwood sawing with electric saws). Pilenie drevesiny tverdolistvennykh porod elektricheskimi pilami.  
Lesnaya Promyshlennost', 11(9): 10-13, 1951.

USPENSKIY, V.A., inzh.

Designing the Bhilai Plant. Prom.stroi. 38 no.4:42-46  
'60. (MIRA 13:8)

1. Promstroyproyekt.  
(Bhilai, India--Steelworks)

BUTAKOV, Sergey Yefimovich; USPENSKIY, V.A., retsenzent; KRYZHNOVA,  
M.L., red. izd-va; MAL'KOVA, N.T., tekhn. red.

[Principles of the ventilation of hot metal-working plants]  
Osnovy ventiliatsii goriachikh tsekhov. Sverdlovsk, Metal-  
lurgizdat, 1962. 286 p. (MIRA 15:11)  
(Rolling mills--Heating and ventilation)  
(Metallurgical plants--Heating and ventilation)

L 01935-67 ENT(m)/T FDN/WE/DJ

ACC NR: AP6030909

SOURCE CODE: UR/0209/66/000/009/0033/0036

AUTHOR: Uspenskiy, V. (Engineer; Colonel)

29B

ORG: none

TITLE: Fuel trucks // and truck-engine heaters for military airfields

SOURCE: Aviatsiya 1 kosmonavtika, no. 9, 1966, 33-36

TOPIC TAGS: fuel truck, special purpose truck, military airfield, heater

ABSTRACT: The author describes fuel trucks intended for military airfields and analyzes means of preheating truck engines under low-temperature conditions. Some details are given concerning the ATTs-8-200 fuel tank mounted on the KRAZ-214 3-axle 6 x 6 chassis, the TZ-5 fuel tank mounted on the Ural-375 chassis, the MZ-150 and MZ-51 modernized oil trucks, and the MPM-85k heater. Orig. art. has: 3 figures. // 6 [NT]

SUB CODE: 15/ SUBM DATE: none/

Card 1/1 hs

L 31899-66 EWT(d)/EWT(l)/EWP(m)/EWT(m)/EWP(w)/EWP(v)/T-2/EWP(k) IJP(c) WW/EM  
ACC NR: AP6011796 SOURCE CODE: UR/0147/66/000/001/0146/0155

AUTHOR: Uspenskiy, V. A.

77  
75  
B

ORG: none

TITLE: Turbulent flow around a vibrating profile

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 1, 1966, 146-155

TOPIC TAGS: turbulent flow, blade profile, angle of attack, rotor blade

ABSTRACT: The author proposes an analytical method for calculating the aerodynamic forces acting on a harmonically vibrating thin profile. A fluid with the velocity  $w$  flows around the thin profile with the angle of attack  $\alpha$  (see figure 1). The profile undergoes progressive rotational motion which corresponds to the torsional flexural vibrations of a blade or vane. If the profile maintains the critical angle of attack  $\alpha_{cr}$  then the smooth flow is disturbed and the stream splits at the point  $x_0$  near the trailing edge (see figure 1). The point of departure of the turbulent stream shifts forward and reaches the leading edge when the turbulent flow around the profile fully develops. This effect increases with the angle of attack. Likewise if the angle of attack is decreased, and a smooth flow is reestablished, the

UDC: 533. 601. 32

Card 1/3

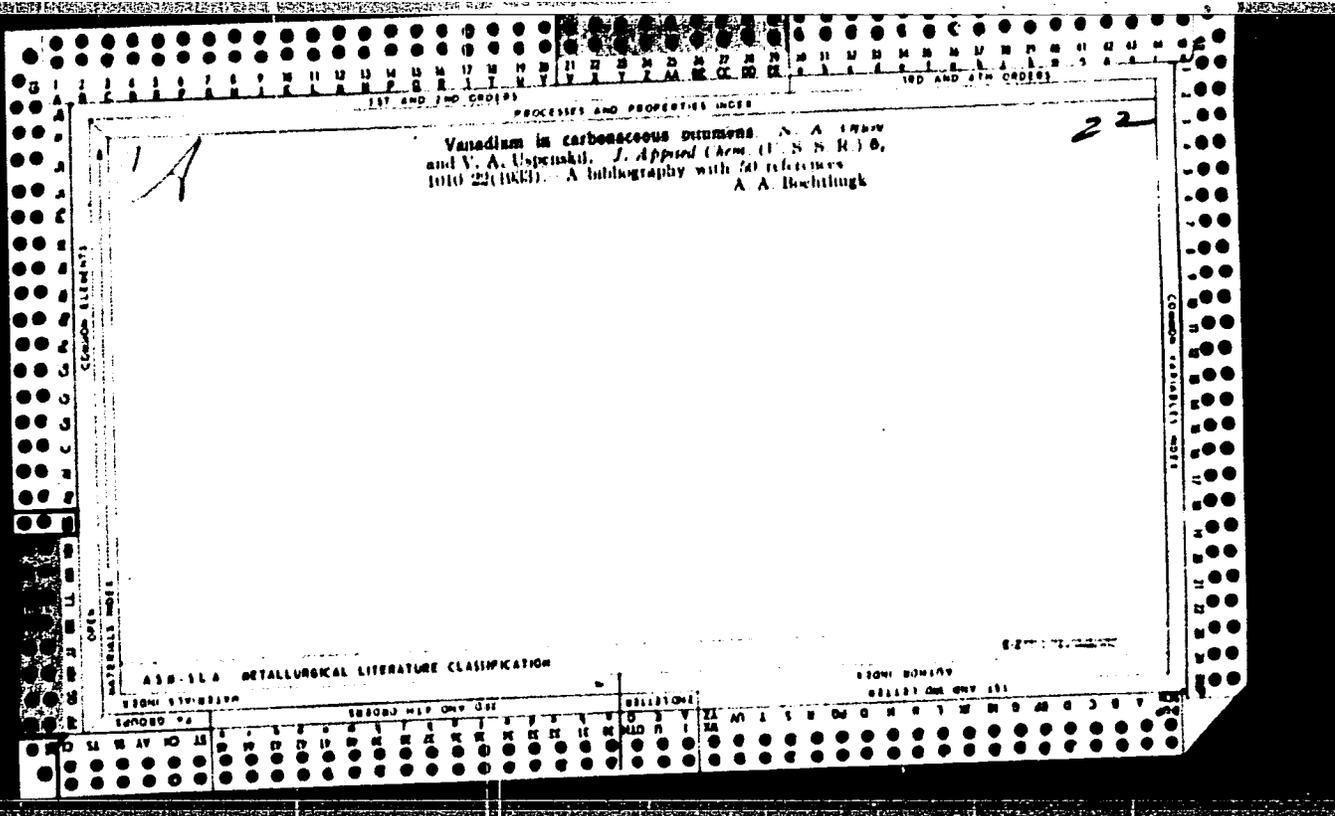
L 31899-66  
ACC NR: AP6011796

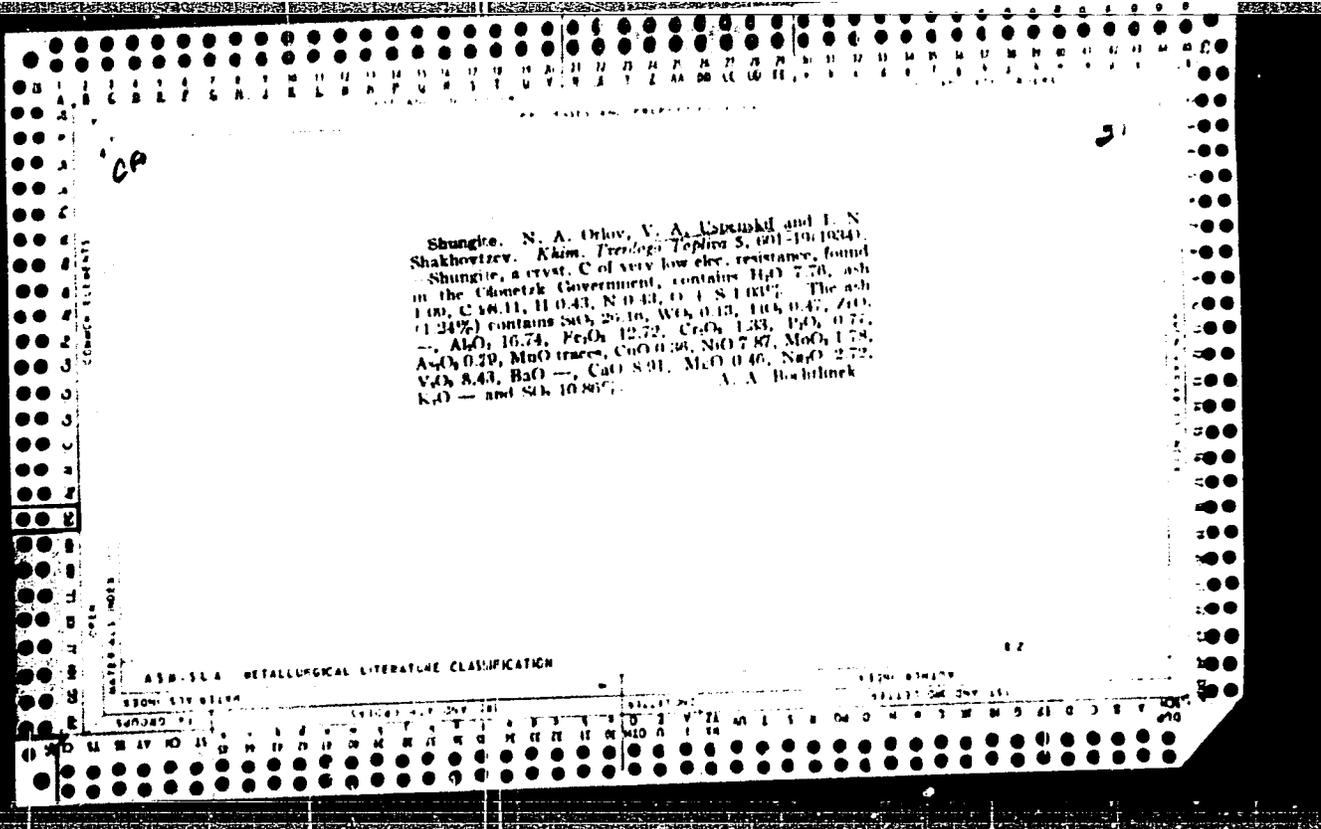
2

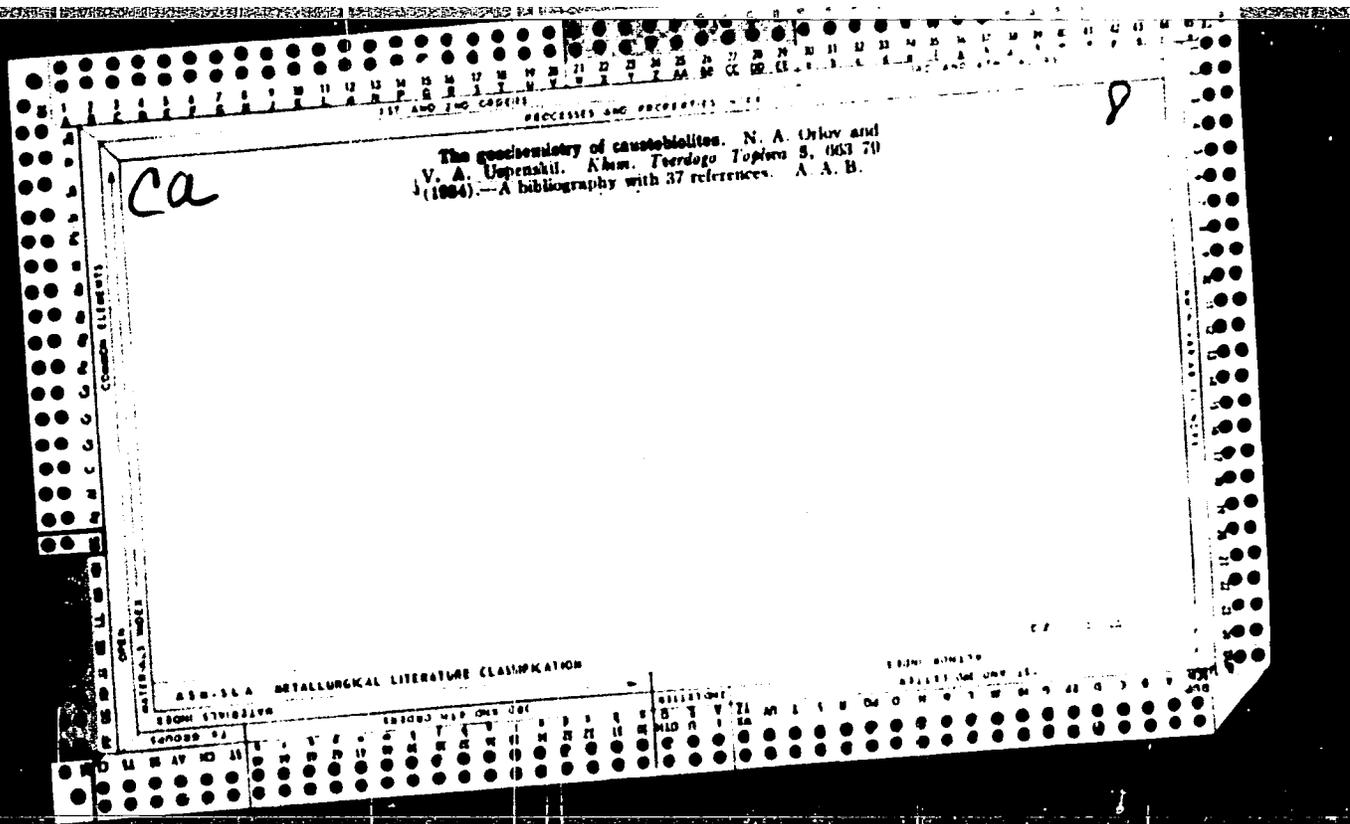
point of departure will coincide with the trailing edge. It is assumed that the disrupted stream spreads rectilinearly from the point of departure to infinity and parallel to the velocity vector. It is further assumed that vortical intensity will stay constant for the same angle of attack. The last assumption eliminates the effect of aerodynamic hysteresis with respect to angle of attack during turbulent flow around a vibrating profile. The relationship between the vortical intensity in the medium and the vortical intensity on the profile is calculated using methods of nonstationary aerodynamics. Change of circulation on the profile causes vortical intensity in the medium. Equations are presented for calculating the increased circulation over the profile. An expression is given for the moment of aerodynamic forces occurring during the plane-parallel flow of an incompressible ideal fluid with disruption around the profile. The results of the study may be used to calculate the stall flutter of aircraft propellers, helicopter rotors and critical speeds of turbines. Orig. art. has: 2 figures, 53 formulas.

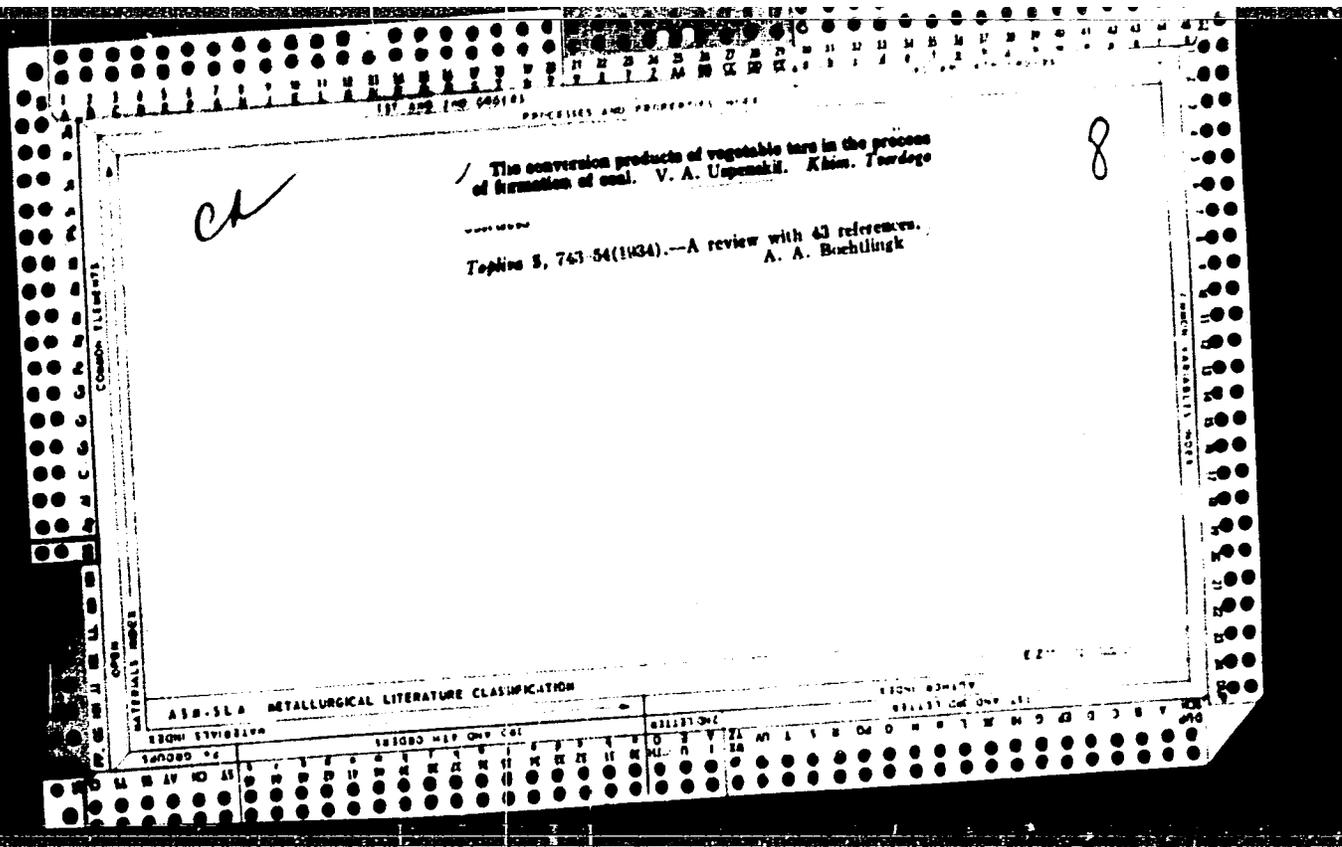
Card 2/3



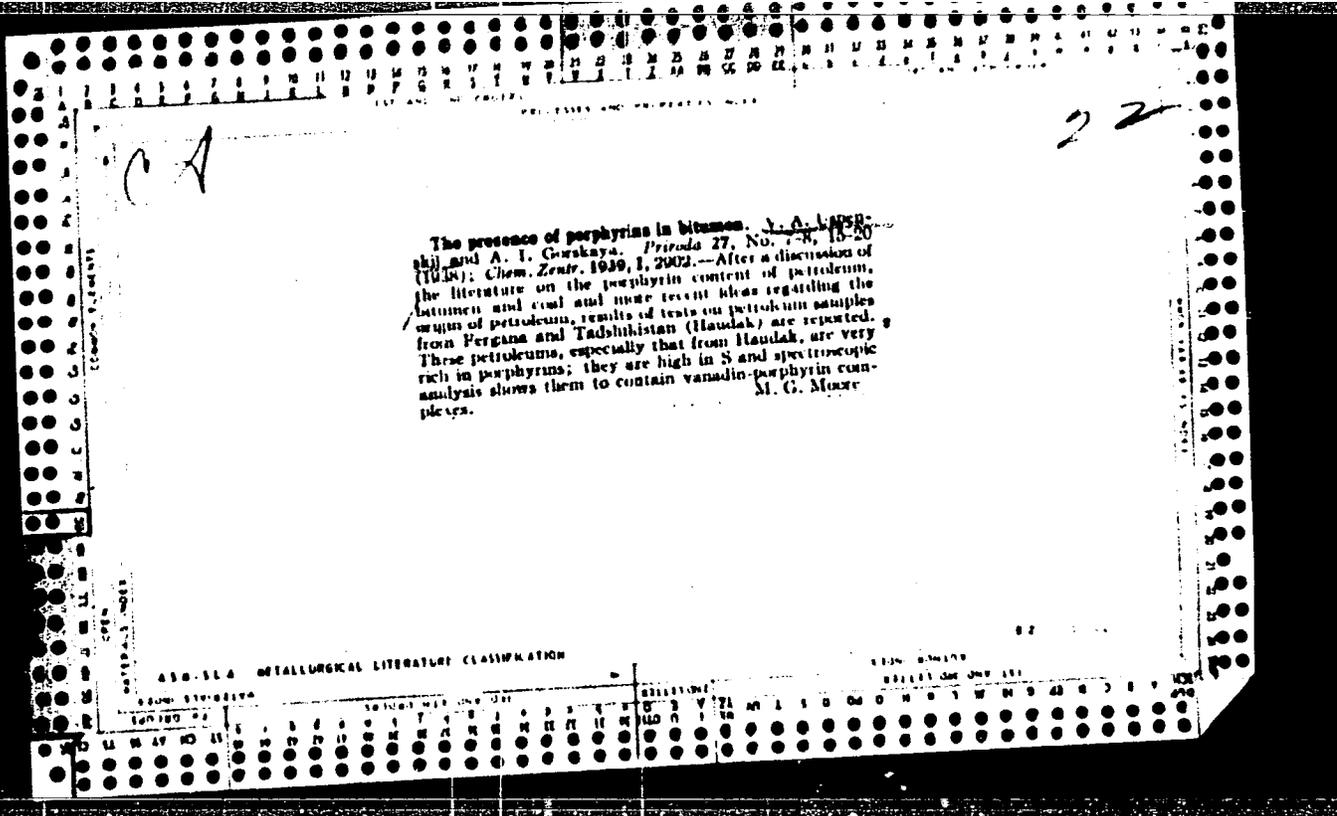




















USFENSKIY, V. A. and RADCHENKO, O. A.

"On the problem of the Origin of different types of crude oils", (K voprosy genezisa tipov nefti), Lengosizdat [Leningrad State Publishing House?], 1947.

1ST AND 2ND ORDERS  
PROCESSES AND PROPERTIES INDEX

180 AND 17M CROSS

F

919. FORMATION OF ALGARITE AND PROCESS OF ANAEROBIC OXIDATION OF PETROLEUM. Uspenskiĭ, V. A., Gorakaya, A. I. and Karpova, I. P. (Izvest. Akad. Nauk S.S.S.R., Ser. Geol. (Bull. Acad. Sci. U.S.S.R., Ser. Geol.), 1947, (4), 89-106; Chem. Zentr. (Russian Zone Ed.), 1948, vol. 1, 890; abstr. in Chem. Abstr., 1950, vol. 44, 8096).

Algarite is a peculiar substance, closely related to carbohydrates and proteins, which has been found in many paraffin-petroleum deposits. It is shown that algarite is a product of the bacterial decomposition of the paraffin hydrocarbons of petroleum and ozocerite. Algarite thus is a product of the later phases of the geochemical history of petroleum. The desulphurization of petroleum is accompanied by the formation of certain hydrocarbons and protein-like substance by bacteria. Bacteria have been found in petroleum which are able to decompose proteins and hydrocarbons and form methane from them. These bacteria are considered to be closely connected with the process of algarite formation in petroleum. Decomposition of algarite by these bacteria results in the formation of methane.

COMMON ELEMENTS  
OPEN  
MATERIALS INDEX  
GROUPS  
A 58-55A METALLURGICAL LITERATURE CLASSIFICATION  
SIGN SYMBOL

GROUPS  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

GROUPS  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

USPENSKIY, V. A.

Uspenskiy, V. A. "Levedev's triangle for the classification of fuel minerals", Trudy Vsesoyuz. nauch.-issled. in-ta mineral. syr'ya, Novaya seriya, Issue 1, 1949, P. 30-44.

SO. U-4631, 16 Sept. 53, (Ietopis 'Zhurnal 'nykh Statey, No 24, 1949).

USSR/Geology - Petroleum  
Hydrocarbons

Sep/Oct 49

"Scattered Form of Hydrocarbon Occurrence in Varlov's  
Sedimentary Rocks," V. A. Uspenskiy, A. S. Chernysheva,  
Yu. A. Mandrykina, 17 pp

"Iz Ak Nauk SSSR, Ser Geol" No 5

Concludes that scattered form of hydrocarbons in  
sedimentary rocks is considerably more prevalent  
than concentrated form of bitumens in the total mass  
of probable petroleum stores of the entire earth.  
From personally gathered material and literary data,  
determined that quantity of hydrocarbons in the

3/50P42

USSR/Geology - Petroleum (Contd) Sep/Oct 49

scattered form is 10,000 times greater than total  
petroleum stores known.

USPENSKIY, V. A.

3/50P42

USPENSKIY, V. A.

24001

USPENSKIY, V. A. Geokhimicheskoye issledovaniye bitumov nekotorykh tipichnykh zakirovaniy. (Iz serii rabot "Issledovaniya po khimii prirodnykh asfal'tov". Soobshch. 3). Trudy Vsesoyuz. Inst. Nauch. Issled. Geol. - razved. IM-TA, Novaya seriya, VYP. 28, 1949, S. 28-46.  
Bibliogr: 10 nazv.

SO: Letopis, No. 32, 1949.

USPENSKIY, V. A.

23992

USPENSKIY, V. A. Issledovaniye seriy biturinozomakh obrazovaniy, svyazannykh opredelennymi Geneticheskimi otnosheniyami. Trudy Vsesoyuz. Nauch. issled. Geol.-Razved. IN-TA, Novaya seriya, VIF. 28, 1949, S. 47-76.

SO: Letopis, No. 32, 1949.

USPENSKIY, V. A.

23991 USPENSKIY, V. A. O prirode stilolitovykh obrazovaniy v kamfryytskikh izvestnyakakh Priangar'ya. Trudy Vsesoyuz. Neft. Nauch. - issled. Geol.-razved. III-TA, Novaya seriya, VIP. 28, 1949, S. 155-66, Bibliogr: 6 nazv.

SO: Letopis, No. 32, 1949.

USPENSKIY, V. A

VASSOYEVICH, N.B., prof., doktor geol.-miner.nauk; ANDREYEV, P.F., kand.  
khim.nauk; BELYAKOV, M.F., kand.geol.-miner.nauk; BARANOVA, T.E.,  
nauchnyy sotrudnik; BUSHINSKIY, G.I., prof.; GELIKER, R.F., prof.,  
doktor biolog.nauk; GROSSGEM, V.A., kand.geol.-miner.nauk;  
ITENBERG, S.S., dotsent; KRISHTOPOVICH, A.N.; LYUBOMIROV, B.N.,  
kand.geol.-miner.nauk; PORFIR'YEV, G.S., kand.geol.-miner.nauk;  
POKROVSKAYA, I.M., prof., doktor geol.-miner.nauk; RADCHENKO, O.A.,  
kand.khim.nauk; RUKHIN, L.B., prof., doktor geol.-miner.nauk;  
TORGOVANOVA, V.B., gidrogeolog; USPENSKIY, V.A., kand.khim.nauk;  
FROLOV, Ye.F., kand.geol.-miner.nauk; ~~FURSENKO, A.V.~~; KHAIN, V.Ye.,  
prof., doktor geol.-miner.nauk; SHARONOV, V.V., prof., doktor  
fiziko-matem.nauk; YASHCHURZHINSKAYA, A.B., vedushchiy red.;  
SOKOLOVA, Ye.V., tekhn.red. (Continued on next card)

VASSOYEVICH, N.B.---(continued) Card 2.

[Handbook for field geologists and petroleum prospectors]  
Sputnik polevogo geologa - nef'tianika. Leningrad, Gos.nauchno-  
tekh.izd-vo neft. i gorno-toplivnoi lit-ry, Leningr.otd-nie,  
1952. 50<sup>4</sup> p. (MIRA 12:12)

1. Groznenskiy ordena Trudovogo Krasnogo Znameni nef'tyanoy insti-  
tut (for Itenberg). 2. Deyatvitel'nyy chlen AN Ukrainaskoy SSR  
(for Kriштоfovich). 3. Chlen-korrespondent AN Belorusskoy SSR  
(for Fursenko).

(Petroleum geology--Handbooks, manuals, etc.)

USPENSKIY, V. A.

PA 241T51

USSR/Geophysics - Bitumen

Nov/Dec 52

"Problem of the Scheme of Genetic Classification of Substances Called Bitumens," V. A. Uspenskiy and O. A. Radchenko

"Iz Ak Nauk SSSR, Ser Geol" No 6, pp 121-127

Outline individual meanings of the concept of "bitumen" with certain revisions in existing terminology.

241T51

USPENSKIY, V. A.

USER/ Geology - Metamorphism

Card 1/1 Pub. 46 - 9/24

Authors : Uspenskiy, V. A.

Title : The material balance of processes occurring during the metamorphism of coal strata

Periodical : Izv. AN SSSR. Ser. geol. 6, 94-101, Nov-Dec 1954

Abstract : Geological data are presented regarding the composition of products formed during geologically continuous change of the buried organic substance. The gaseous and liquid products of coal metamorphism become separated because of their physical state and only the solid residual products remain perfectly preserved in their point of origin. The processes occurring during the metamorphism of coal are described. Eight references: 7 USSR and 1 USA (1924-1949). Tables.

Institution : .....

Submitted : August 28, 1952

USPENSKIY, V. A.

AID P - 574

Subject : USSR/Mining  
Card 1/1 Pub. 78 - 11/22  
Author : Uspenskiy, V. A. and Radchenko, O. A.  
Title : Origin of petroleum (Discussion)  
Periodical : Neft. Khoz., v. 32, #8, 41-51, Ag 1954  
Abstract : Various hypothetical schemes of the chemical and biological origin and transformation of petroleum are described and analysed. Special consideration is given two types of caustobioliths considered as the result of natural parallel transformation of organic substances humification under the oxidation of burial conditions and bituminization under reduction conditions. Primary and secondary migration and accumulation of dispersed hydrocarbons at various stages of metamorphization were examined from the viewpoint of the problem of genesis and hypogenesis of petroleum and for the general outline of the natural history of petroleum. 14 Russian references (1932-1952).  
Institution : None  
Submitted : No date

BAKIROV, A.A., doktor nauk, redaktor; VASSOYEVICH, N.B., doktor nauk;  
VEBER, V.V., doktor nauk; DVALI, M.F., doktor nauk; DOBRYANSKIY,  
A.V., doktor nauk; MAYMIN, Z.L., doktor nauk; MIRCHINK, M.V.,  
redaktor; ANDREYEV, P.F., kandidat nauk; AYZENSHADT, G.Ye.,  
kandidat nauk; BOGOMOLOVA, A.I., kandidat nauk; GORSKAYA, A.I.,  
kandidat nauk; ZHABREV, D.V., kandidat nauk, redaktor; KAZMINA,  
T.A., kandidat nauk; MESSINEVA, M.A., kandidat nauk, PETROVA,  
Yu.N., kandidat nauk; RADCHENKO, O.A., kandidat nauk; TATARSKIY,  
V.T., kandidat nauk; TIKHIY, V.N., kandidat nauk; USPENSKIY, V.A.  
kandidat nauk, DYAKOV, B.F., redaktor; SAVINA, Z.A., redaktor;  
TROFIMOV, A.V., tekhnicheskiiy redaktor.

[Origin of oil] Proiskhozhdenie nefiti. Pod red. M.F.Mirchinka i  
dr. Moskva, Gos.nauchno-tekhn.izd-vo nefitanoi i gorno-toplivnoi  
lit-ry, 1955. 483 p. (MLRA 9:1)

1. Chlen korrespondent AN SSSR (for Mirchink)  
(Petroleum geology)

60-55-26-16/16

**AUTHOR:** Uspenskiy, V. A.

**TITLE:** Terrestrial Magnetism and the Earth's Internal Structure (Voprosy zemnogo magnetizma i vnutrenneye stroyeniye zemli)

**PERIODICAL:** Trudy Geofizicheskogo instituta Akademii nauk SSSR, 1955, Nr 26, pp 208-210 (USSR)

**ABSTRACT:** The author maintains that any theory of the Earth's internal structure must take into account the accumulated data on terrestrial magnetism, and that changes in the Earth's interior are directly related to variations in the geomagnetic elements observed on the surface. He suggests that a study of the relation between secular variations in the Earth's magnetic elements and irregularity in the Earth's daily rotation, and the study of seismic waves reflected from the surface of the core in regions corresponding to sources of secular variation should contribute to an understanding of the problem.

**AVAILABLE:** Library of Congress

Card 1/1

USPENSKIY, V. A.

USPENSKIY, V. A.; RADCHENKO, O. A.

Genetic types of humic acids. Trudy VNIIGRI no.83:188-195 '55.  
(Humic acid) (MIRA 8:10)

~~USPENSKIY, Vladimir Alekseyevich; VEKBER, Vasilii Valerianovich, redaktor;~~  
PERMINOV, S.V. vedushchiy redaktor; GEMHAD'YEVA, I.M., tekhnicheskii  
redaktor

[Balance of carbon in the biosphere in connection with the distribu-  
tion of carbon in the earth's crust] Balans ugleroda v biosfere v  
svyazi s voprosom o raspredelenii ugleroda v zemnoi kore. Leningrad,  
Gos. nauchno-tekhn. izd-vo nefti i gorno-toplivnoi lit-ry, Leningr.  
otd-nie, 1956. 100 p. (MLRA 10:4)  
(Carbon) (Geochemistry)

USPENSKIY, V.A.; INDENBOM, F.B.; CHERNYSHEVA, A.S.; SENNIKOVA, V.H.

Geochemical study of organic substance in Mesozoic and Cenozoic  
rocks of the Grozny oil area. Avtoref. trud: VNIIGRI no.17:48-54  
'56. (MIRA 11:6)  
(Groznyy Province--Petroleum geology) (Organic matter)

15-57-5-6278

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,  
p 84 (USSR)

AUTHORS: Uspenskiy, V. A., Mandrykina, Yu. A.

TITLE: The Discovery of the Mineral Sheererite in Fossil Wood  
From the Upper Sarmatian Deposits of Taman' (O nakhodke  
minerala sheyererita v iskopayemoy drevsine iz  
verkhnesarmatskikh otlozheniy Tamani)

PERIODICAL: Tr. Vses. neft. n.-i. geol.-razved. in-ta, 1956, Nr 95,  
pp 322-329.

ABSTRACT: A crust of white crystalline substance has been found on  
the exposed surface of an ancient tree trunk in fossil  
woody material (lignite) in the region of Zelenskiy's  
gora (Mountain) on the shore of the Black Sea. The  
crystalline substance is locally continuous, locally  
consisting of individual bands and spots. A chemical  
analysis and also spectral absorption have shown that  
this crust is composed of an organic mineral, sheererite  
(C<sub>18</sub>H<sub>18</sub>).  
no initial

Card 1/1

USPENSKIY, V.A.; INDENBOM, F.B.; CHERNYSHEVA, A.S.

Chemical investigation of the hydrocarbon fraction of bituminogens.  
VNIGRI no.105:221-227 '57. (MIRA 11:9)  
(Bitumen)

USPENSKIY, Vladimir Aleksyeyevich; INDENBOM, Fanya Baynusovna; GORSKAYA,  
A.I., red.; BARINA, G.M., vedushchiy red.; YASHCHURZHINSKAYA,  
A.B., tekhred.

[Volga-Ural oil-bearing area; geochemical characteristics of  
petroleums and other bitumens] 'Volgo-Ural'skaya neftenosnaya oblast';  
geokhimicheskaya kharakteristika neftei i drugikh bitumov. Lenin-  
grad, Gos.nauchno tekhn. izd-vo nef. i gorno toplivnoi lit-ry,  
1957. 302 p. (Vsesoyuznyi neftianoi nauchno-issledovatel'skii  
geologorozvedchnyi institut. Trudy, no.107) (MIRA 12:7)  
(Volga Valley--Petroleum) (Ural Mountain region--Petroleum)  
(Ural Mountain region--Bitumen)

USPENSKIY, V. A., N.S. BESKROVNYI and T. N. MEL'TSANDKAYA

"Algarite [Stone-oil, Altered Paraffin] Finds in the Granites of the Lake Baykal Area." p. 443

Geologicheskii sbornik, 3, (Collection of Articles in Geology, Vol. 3),  
Leningrad Gostoptekhnizdat, 1958, 471pp. (Trudy, vyp 126, Vsesoyuznyy neftyanoy  
nauchno-issledovatel'skiy geologorazvedochnyy institut)

USPENSKIY, V A.

3(5); 11(4)

p. 4

PHASE I BOOK EXPLOITATION

SOV/1234

Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut

Voprosy obrazovaniya nefti; sbornik statey (Problems on the Origin of Petroleum; Collection of Articles) Leningrad, Gostoptekhizdat, 1958. 389 p. (Series: Its: Trudy, vyp. 128) 2,000 copies printed.

Ed.: Vassoyevich, N.B., Professor; Tech, Ed.: Gennad'yeva, I.M.; Executive Ed.: Barkovskiy, I.V.

PURPOSE: This book is intended for geologists, geophysicists, and petroleum technologists, as well as for students at geological and petroleum-engineering institutes.

COVERAGE: This book, containing four articles written by 11 specialists, reports on the results of studies made on the origin of oil deposits in the Northeastern Caucasus. The program was organized in 1950-55 by the VMIGRI (All Union Petroleum Scientific Research Institute for Geological Survey.) Some of the material presented in the book is of a preliminary nature as the studies are still continuing. Particular attention is devoted to the problem of incipient oil concentration (micro-oil) and to the migration and transformation of bituminous substances into drops and liquid phases (macro-oil). The authors outline two periods in the .

Card 1/6

Problems on the Origin (Cont.)

SOV/1234

formation of oil in terrigenous sediments: 1) the appearance of dispersed micro-globules in parent clays, and 2) the migration of the globules from their source-beds to reservoir-beds and thence their further migration and accumulation in oil traps as liquid drops (macro-oil). The first article is devoted almost entirely to the formation of micro-oil. The second attempts a genetic classification of the sedimentary organic matter. The third defines the content of organic matter in various types of rocks, and describes the conditions under which it undergoes change. The fourth article describes bituminous substances and bitumens and analyzes their components. In addition to a review of the chemical changes in oil, there is a discussion of the problems of petroleum microbiology. The book contains 67 figures and 180 tables. There are 570 references of which 480 are Soviet.

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Problems on the Origin (Cont.)

SOV/1234

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## Problems on the Origin (Cont.)

SOV/1234

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Card 4/6

FEDOROV, A.N. [deceased]; UT'YANOV, A.V. [deceased]; TEODOROVICH, G.I.;  
USEVINSKIY, V.A.; RADCHENKO, O.A.; FIEDYNSKIY, V.V.; MAKSIMOV, M.I.;  
SUBBOFINA, N.H.; STEPANOV, D.L.; MIRCHINK, Mikhail Fedorovich,  
red.; IONINA, I.N., vedushchiy red.; YASHCHURZHINSKAYA, A.B.,  
tekhn. red.

[Dictionary of petroleum geology] Slovar' po geologii nefi. Izd.2.,  
ispr. i dop. Leningrad, Gos. nauchno-tekhn. izd-vo nefi i gorno-  
toplivnoi lit-ry, Leningr. otd-nie, 1958. 776 p. (MIRA 11:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Mirchink).  
(Petroleum geology--Dictionaries)

14(5)

SOV/9-59-7-14/15

AUTHORS: Uspenskiy, V.A. and Radchenko, O.A.

TITLE: Letter to the Editor

PERIODICAL: *Geologiya nefti i gaza*, 1959, Nr 7, pp 63 - 64 (USSR)

ABSTRACT: The authors refer to a book on "Transformation of Petroleum in Nature" by P.F. Andreyev, A.I. Bogomolov, A.F. Dobryanskiy, and A.A. Kartsev. They address some remarks to A.A. Kartsev who has incorrectly used data from a book composed by the authors on "Genesis of Petroleum Types" and analogous data submitted by G.P. Tamrazyan.

Card 1/1

USPENSKIY, V.A.

Basic stages in the natural history of petroleum.  
no.132:163-171 '59.

Trudy VNIGRI  
(MIRA 17:1)

VEBER, V.V.; USPENSKIY, V.A.

Kobystan kerite in the series of other solid bitumens of the  
southeastern Caucasus. Sov.geol. 2 no.12:112-118 D '59.  
(MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy  
neftyanoy institut.  
(Caucasus--Bitumen)

USPENSKIY, V.A.; RADCHENKO, O.A.; GLEBOVSKAYA, Ye.A.; SHISHKOVA, A.P.;  
MEL'TSANSKAYA, T.N.; INDENBOM, F.B.; Primalni uchastiye:  
KOLOTOVA, L.F., khimik; CHAGINA, T.P., tekhnik; BASKINA, T.B.,  
laborant; VIKULINA, M.N., laborant; POLOVNIKOVA, I.A., fizik;  
PETROV, A.K., tekhnik; PONOMAREV, B.P., laborant; KHYAMYALYAININ,  
L.B., laborant; KLOCHKOV, B.N., laborant; RAGINA, G.M., vodushchiy  
red.; SAFRONOVA, I.M., tekhn.red.

[Basic processes of the transformation of bitumens in nature  
and the problems of their classification] Osnovnye puti pre-  
obrazovaniya bitumov v prirode i voprosy ikh klassifikatsii.  
Leningrad, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi  
lit-ry Leningr.otd-nie, 1961. 314 p. (Leningrad. Vsesoiuznyi  
nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy,  
no.185). (MIRA 15:4)

(Bitumen--Geology)

USPENSKIY, V.A.

Geochemistry of the processes of primary oil migration. Geokhimiia  
no.12:1027-1045 '62. (MIRA 16:9)

1. All-Union Scientific Research Institute of Geological Oil  
Prospecting.  
(Geochemistry) (Petroleum geology)

USPENSKIY, V.A.; RADCHENKO, O.A.; GLEBOVSKAYA, Ye.A.; GORSKAYA, A.I.;  
SHISHKOVA, A.P.; PARPAROVA, G.M.; KOLOTOVA, L.F.; MEL'TSANSKAYA,  
T.N.; NERUCHEV, S.G., red.

[Principles of the genetic classification of bitumens]. Osnovy  
geneticheskoi klassifikatsii bitumov. Leningrad, Nedra, 1964.  
266 p. (Leningrad, Vsesoiuznyi neftianoi naychno-issledovatel'-  
skii geologorazvedochnyi institut. Trudy. no.230).

(MIRA 17:7)

L 50199-65 EPA(s)-2 /EWT(m)/EFT(n)-2/T/EWP(t)/EWP(b)/EWA(c) Pu-4  
 IJP(c) WWH/ES/JD/NW/JG  
 AM5014982 BOOK EXPLOITATION UR/553.061:546.79

Batulin, S. G.; Golovin, YE. A.; Zelenova, O. I.; Kashirtseva, M.  
 Komarova, G. V.; Kondrst'yeva, I. A.; Lisitsin, A. K.; Perel'man,  
 A. I.; Sindel'nikova, V. D.; Chernikov, A. A.; Shmariovich, YE. M.

Exogenous epigenetic deposits of uranium; formation conditions  
 (Ekzonennyye epigeneticheskiye mestorozhdeniya urana; usloviya  
 obrazovaniya). Moscow, Atomizdat, 1965. 321 p. illus., biblio.  
 Errata slip inserted, 1100 copies printed.

TOPIC TAGS: deposit formation, epigenetic theory, exodiagenetic  
 deposit, surface uranium accumulation, uranium bituminous deposit,  
 uranium deposit, uranium, nuclear fuel.

PURPOSE AND COVERAGE: This book is intended for readers specializing  
 in the geology of ore deposits, in particular for those concerned  
 with atomic raw materials, and also for students of higher-education  
 institutions. In the book, for the first time in Soviet and  
 foreign literatures, the epigenetic theory of uranium-deposit  
 formation is expounded. Many Soviet and foreign source materials

Card 1/4

L-50199-65  
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13

have been used in this book, and some of the investigations carried out by the present authors are published in this book for the first time. Several names of Soviet scientists working in this field are mentioned. V. A. Uspenskiy collaborated on Ch. I, and M. A. Viscikina on Ch. III. The authors thank A. A. Saukov, deceased, Corresponding Member Academy of Sciences USSR, and P. I. Vol'fson, D. G. Sapozhnikov, V. I. Garasimovskiy, M. F. Stralkin, G. S. Gritsavenko, and I. P. Kushnarev, Doctors of Geologico-Mineralogic Sciences; V. I. Danchay, Candidate of Geologico-Mineralogic Sciences, and N. A. Volokovykh. There are about 12 pages of references of which about 3/4 are Soviet.

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  - Ch. VII. Exodiagenetic deposits (Type 5) -- 113
  - Ch. VIII. Deposits of Oxygenous sheet oxidation (Type 6) -- 133
  - Ch. IX. Deposits of oxygen-free oxidation (Type 7). Deposits in oil-bearing carbonate rocks -- 180
  - Ch. X. Uranium-bituminous deposits in nonmetamorphosed sedimentary rocks -- 215

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AVAILABLE: Library of Congress

SUB CODE: ES

SUBMITTED: 04Feb65

NO REF SOV: 188

OTHER: 118

Card 4/A

OS. MOHRY, V. A.

"Application of Dry Distillation for  
Determining the Composition of Mineral Fuels."  
Thesis for degree of Cand. Technical Sci.  
Sub 22 Mar 50, All-Union Sci Inst of  
Mineral Raw Materials.

Summary 71, 4 Sep 52, Dissertations Presented  
for Degrees in Science and Engineering in Moscow  
in 1950. From Vechernyaya Moskva. Jan-Dec 1950.





1331. VELOCITIES OF PARTICLES AND COEFFICIENTS OF RESISTANCE IN PNEUMATIC TRANSPORT (FUEL IN PIPES). Uspenski, V.A. (Za Ekon. Topliva (Fuel Econ.) Mar. 1951, 26-30). Experiments were made with particles of ash 0.82 and 0.142 m.m. in diameter travelling along a 41 m.m. pipe. Coefficients of resistance obtained from them agreed with results obtained from full scale ash removal plants. (L).

1331-1332 METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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USPENSKIY, V.A.; KAVADEROV, A.V., kandidat tekhnicheskikh nauk, redaktor;  
KOVALENKO, N.I., redaktor.

[Pneumatic transportation of materials in a suspended state] Pnev-  
matischeskii transport materialov vo vzveshennom sostoianii. Sverd-  
lovsk, Gos. nauchno-tekhn. izd-vo lit-ry po cherno i tsvetnoi metal-  
lurgii, 1952. 150 p. (MLRA 7:4)

(Pneumatic-tube transportation)

AID P - 1326

Subject : USSR/Engineering  
Card 1/1 Pub. 110-a - 8/19  
Author : Uspenskiy, V. A., Kand. of Tech. Sci.  
Title : Utilization of circulating cooling water from electric power stations and industrial enterprises for greenhouse heating  
Periodical : Teploenergetika, 2, 35-38, F 1955  
Abstract : The article outlines principles and construction of greenhouses which can be utilized for the reduction of heat losses of the cooling water of power stations and industrial enterprises. Substantial economy is achieved when the suggested greenhouses are installed. The results of tests are given indicating the coefficient of heat transfer from water into the surrounding atmosphere. Photo, diagrams.  
Institution : Eastern Scientific Research Institute of Fuel Utilization  
Submitted : No date

USPENSKIY, V.A

<sup>21</sup>  
~~Correction heat exchange during the combustion of~~ <sup>2</sup>  
~~of the fuel and V. A. Uspenkiy.~~

HT

*11577 4-11-11 11 7*  
VERNIGOR, Pavel Ivanovich; ROPOFORT, Il'ya Savel'yevich; ~~USPENSKIY, V.A.~~,  
red.; ROZHKO, L.P., red.; KEL'NIK, V.P., red. izd-va; ZEP, Ye.M.,  
tekhn. red.

[Machinist operating an electric gas purifier] Mashinist elektri-  
cheskoi gazoochistki. Sverdlovsk, Gos. nauchno-tekhn. izd-vo  
lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie,  
1957. 228 p. (MIRA 11:3)  
(Gas purification)

SOV/124-58-5-5077

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 19 (USSR)

AUTHOR: Uspenskiy, V.A.

TITLE: Dynamic-pressure Fields in Gas Flames (Polya dinamicheskikh naporov gazovogo fakela)

PERIODICAL: Vses. n.-i. in-t metallurg. teplotekhn. Byul. nauchno-tekhn. inform., 1957, Nr 2, pp 24-28

ABSTRACT: The dynamic-pressure fields in several cross sections of a gas-combustion flame are determined. The experimental apparatus used consisted of a burner with concentric tubes, the inside tube of which (53 mm in diameter) carried the gas; the annular space between the tubes (which in the experiments measured variously 0.01485, 0.00495, and 0.00207 m<sup>2</sup> in cross-sectional area) carried the air. The gas-flow rate during the experiments was 47.3 m/sec, the air-flow rate 8.18 m/sec. The tests confirmed the similarity of the profiles of the dimensionless dynamic pressures  $h/h_0$  (referred to the dynamic pressure on the jet axis) on cross sections of the flame selected with reference to the coordinate  $y/y_0$ , wherein  $y$  is the distance from the axis of the flame to a generic point,  $y_0$  being the

Card 1/2

SOV/124-58-5-5077

## Dynamic-pressure Fields in Gas Flames

distance from the flame axis to a point at which the dynamic pressure is one-half the maximum pressure. It is demonstrated, also, that the dynamic-pressure profile along the cross sections of the flame investigated is described satisfactorily by the relationship

$$\frac{h}{h_0} = \left[ 1 - \left( \frac{0.293}{y_0} \right)^{3/2} \right]^4$$

It should be mentioned that the article does not contain any data on the variation along the length of the flame of the coordinate  $y_0$  (characterizing the width of the jet) or on the drop in velocity along the axis of the flow with increasing distance from the nozzle, data that are indispensable for a visualization of the flow inside the jet. Bibliography: 4 references.

O.V. Yakovlevskiy

1. Flames--Pressure
  2. Flames--Analysis
  3. Dynamics
  4. Mathematics
- Applications

Card 2/2

SOV/137-58-11-21904

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 11, p 10 (USSR)

AUTHOR: Uspenskiy, V. A.

TITLE: An Investigation of the Combustion Processes in a Gas Flame  
(Issledovaniye protsessov goreniya gazovogo fakela)

PERIODICAL: Vses. n.-i. in-t metallurg. teplotekhn. Byul. nauchno-tekhn.  
inform., 1957, Nr 2, pp 29-42

ABSTRACT: An investigation is made of combustion (C) of producer gas made from coke breeze delivered through a central aperture 64.92 mm in diameter through a concentric-tube type of burner. The area of the annular section for air delivery is 0.0295 m<sup>2</sup>. The gas C took place in a chamber 3 m in length and 0.6x0.6 m in cross section. Two characteristic C regimes are observed. When gas velocity is >28 m/sec, C starts at some distance from the burner and is characterized by rapid movement and a short flame. When gas velocity is <28 m/sec, C starts at the lip of the burner and terminates later than in the former case. The similarity of the dynamic-head fields of the cold and burning flames shows that the pressure gradient lengthwise in the chamber does not affect the transfer of quantity of

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SOV/137-58-11-21904

An Investigation of the Combustion Processes in a Gas Flame

motion in the transverse direction. The quantity of motion diminishes lengthwise in the chamber with a simultaneous rise in pressure. The sum of the quantities of motion and pressure, multiplied by the cross-sectional area, remains constant. When C occurs in a chamber it is necessary, in contrast to the situation with a free jet, to take into consideration the lengthwise change in pressure in the chamber. Investigation of C at gas velocities of 28.6-42.8 and air velocities of 3.67-5.41 m/sec, the velocity ratio being constant at 7.9, shows the fields of dynamic head to be similar. At the entrance to the main region a sharp increase in volume due to the C of the gas is observed, the angle of flare being  $34^{\circ}$ . After the gas has burned, the angle of flare is  $18^{\circ}50'$ . The temperature fields are similar at identical distances from the burner, but the absolute value of the temperature in an experiment with high thermal load is somewhat greater. The load on the burner does not affect gas combustion lengthwise in the chamber or the aerodynamic characteristics of the flame, as presented in dimensionless coordinates, if the excess air factor is constant.

G. G.

Card 2/2

USPENSKIY, V.A., kand.tekhn.nauk

Experimental design for a pneumatic-hydraulic ash removal system.  
Elek.sta. 28 no.10:80-82 '57. (MIRA 10:11)  
(Metallurgical plants)

14(2); 25 (2)

PHASE I BOOK EXPLOITATION

SOV/3327

Uspenskiy, Vladimir Aleksandrovich'

Pnevmaticheskiy transport (Pneumatic Tube Transportation). 2d ed., enl.  
Sverdlovsk, Metallurgizdat, 1959. 231 p. Errata slip inserted.  
3,000 copies printed.

Ed.: A.V. Kavaderov; Ed. of Publishing House: N.N. Tsymbalist;  
Tech. Ed.: Ye.M. Zef

**PURPOSE:** This book is intended as a manual for calculating and designing installations for pneumatic transportation of loose materials and two-phase fluids, such as ash and slag slurries.

**COVERAGE:** The book considers the working principles, the layouts of installations, the area of application and the advantages and disadvantages of pneumatic-hydraulic transportation of materials in the suspended state. The theoretical foundations for the calculation are presented and computational examples are given; designs of the basic installation equipment also are considered. The book reflects the results of the joint work on

Card 1/6

Pneumatic Tube Transportation

SOV/3327

the use of pneumatic transportation for the removal of ashes and slag by an exhaust system which was conducted by the VNIIMT (All-Union Scientific Research Institute for Metallurgic Thermo-technics), URALENERGOCHERMET (Ural All-Union Trust for the Design, Planning, Assembly, and Adjustment of Power Installations and Control and Measuring Instruments of the Ministry of Ferrous Metallurgy of the USSR), and the Directorate of Ferrous Metallurgy of the Sverdlovsk Economic Administrative District and its plants. The second edition of the book reflects the recent development of ash-removal techniques utilizing pneumatic transportation. It emphasizes that a number of large power stations have been converted to pneumatic ash removal in connection with the great demand for ash in the production of cement, concrete, and foam cement. The book contains 100 figures and 34 tables. The bibliography contains 79 references, of which 77 are Soviet and 2 English.

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AVAILABLE: Library of Congress

Card 6/6

AC/mas  
3-31-60

BOL'SHAKOV, Gennadiy Fedorovich; GLEBOVSKAYA, Yekaterina Aleksandrovna;  
USPENSKIY, V.A., nauchnyy red.; SEGAL', Z.G., ved. red.;  
SAFRONOVA, I.M., tekhn. red.

[Heterogeneous organic compounds of jet propulsion fuels] Getero-  
organicheskie soedineniia reaktivnykh topliv. Leningrad, Gos-  
toptekhnizdat, 1962. 219 p. (MIRA 16:2)  
(Airplanes--Fuel)

ACCESSION NR: AP4021555

S/0143/64/000/002/0068/0073

AUTHOR: Uspenskiy, V. A. (Engineer)

TITLE: Theory of the stalled flutter of a turbomachine blade

SOURCE: IVUZ. Energetika, no. 2, 1964, 68-73

TOPIC TAGS: turbine blade flutter, stalled flutter, turbine blade stalled flutter, turbine blade flutter theory, turbine blade, turbomachine blade

ABSTRACT: Since previous theoretical works on this subject have been, in the author's opinion, either oversimplified or insufficient, a new theoretical solution is advanced for the problem of finding the aerodynamic forces acting on a unit length of the span of a harmonically vibrating turbomachine blade. The linear problem equates to zero the work of the aerodynamic forces along the maximum-cycle contour. A thin, slightly curved profile is considered which is washed by a plane-parallel potential flow. The profile oscillates and, at a certain angle of

Card 1/2

ACCESSION NR: AP4021555

attack, a flow detachment occurs at the front edge. The results of the solution can be used for determining (a) the critical rate of the stalled flutter and (b) blade deformations with the subsequent finding of stresses in the blade. The solution is also valid for the case of finite-amplitude (up to  $\pm 8^\circ$ ) harmonic vibrations. Orig. art. has: 2 figures and 35 formulas.

ASSOCIATION: Khar'kovskiy aviatsionny\*y institut (Khar'kov Aviation Institute)

SUBMITTED: 22Mar62

DATE ACQ: 08Apr64

ENCL: 00

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Card 2/2

L 54741-65 EWT(i)/EWT(m)/ENP(w) JD/EM  
ACCESSION NR: AP5015783

UR 0143/65/000/006/0046/0053  
621.515

AUTHOR: Uspenskiy, V. A. (Engineer)

18  
B

TITLE: Stall flutter in an axial turbomachine

SOURCE: IVUZ. Energetika, no. 6, 1965, 46-53

TOPIC TAGS: turbomachine, flutter, stall flutter, stall

ABSTRACT: The author analytically determines regimes at which a flexural-torsional flutter with flow separation occurs in turbomachines, and analyzes a plane flow of an incompressible ideal fluid over a blade profile. The results obtained can be used to calculate the purely torsional or flexural flutter with flow separation. In the analysis the hysteresis of the aerodynamic force along the angle of attack is not taken into account because it would lead to serious mathematical complications of the problem. In spite of that, however, the theoretical calculations are confirmed by experiments. Orig. art. has: 31 formulas and 3 figures. [AC]

ASSOCIATION: Kharkovskiy aviatsionnyy institut (Kharkov Aviation Institute)

Card 1/2

L 54741-65

ACCESSION NR: AP5015783

SUBMITTED: 18Mar64

ENCL: 00

SUB CODE: ME, PR

NO REF SOV: 005

OTHER: 001

ATD PRESS: 4030

Card 2/2

USPENSKIY, V.A.

SUBJECT USSR/MATHEMATICS/Foundations of mathematics CARD 1/2 PG - 575  
 AUTHOR USPENSKIY V.A.  
 TITLE Systems of enumerable sets and their enumeration.  
 PERIODICAL Doklady Akad. Nauk, 1155-1158 (1955)  
 reviewed 2/1957 (105)

Let us call a mapping of any set  $E$  of natural numbers onto the set  $M$  an enumeration of  $M$ . In recursive function theory use is often made of standard enumerations of the system  $Q^{(n)}$  of all recursively enumerable (r.e.) subsets of  $N^n$  ( $n$  tuples of natural numbers) and the system  $U^{(n)}$  of all partial recursive functions of  $n$  arguments. These classical enumerations due to Post, Kleene and Rice are all obtained as follows: each object (set or function) is defined by a finite set of rules; these are written down in a definite code, the set of such expressions is enumerated and this yields the enumeration of the system. The present paper on the other hand is not concerned with particular enumerations but is an abstract study of the general properties of enumeration of systems of r.e. sets. Most of the properties are stated in terms of the natural topology obtained by taking as neighborhoods all systems of supersets of finite sets e.g. a sub-system  $P$  of a system  $M$  is called effectively open in  $M$  if there exists a r.e. system  $K$  of finite sets such that  $P = \bigcup_{F \in K} F$  where  $F$ -system of all sets in  $M$  containing  $F$  as a subset. The paper contains very many interesting results but it is impossible to give a useful summary of the

Doklady Akad.Nauk 105, 1155-1158 (1955)

CARD 2/2

PG - 575

results in any shorter space than the original paper since this is already completely condensed, consisting only of definitions and statements of Theorems. Suffice it to say that the terms effectively open,  $\omega$ -separable, pseudo-closed as applied to systems, and the terms open, continuous, computable, potentially computable, covering, fully covering, principal (of first and second kinds) as applied to enumerations, are introduced and the relations between them are studied. E.g. Theorem 2: If  $\alpha$  is a potentially computable enumeration of  $M$  then each system contained in  $M$  which is effectively open in  $M$  is fully recursive in  $M_\alpha$ . Finally some theorems are stated connecting these concepts with computable operators e.g. Theorem 6: Let  $X_\alpha$ ,  $Y_\beta$  be enumerated systems with  $\alpha$  computable and  $\beta$  covering. Then each one place computable operator mapping  $X$  on  $Y$  coincides on  $X$  with some computable map of  $X_\alpha$  on  $Y_\beta$ .

USPENSKIY, V. A.

2

I-FW

Uspenskiy, V. A. On computable operations. Dokl. Akad. Nauk SSSR (N.S.) 143 (1955), 773-776. (Russian)  
This is a very condensed and technical paper. It is

msll-

such that all the  $\alpha$  and  $\beta$  expressions consisting of a single  $\alpha$  are in  $\mathcal{Q}$ ,  $\beta$  and  $\alpha$  is in  $\mathcal{Q}$ , so is  $\alpha\beta$ , and  $\alpha$  if  $\beta$  and  $\alpha$  are in  $\mathcal{Q}$ . If the concatenation of  $\alpha$  and  $\beta$  is in  $\mathcal{Q}$  and  $\alpha$  is in  $\mathcal{Q}$ , then  $\beta$  is in  $\mathcal{Q}$ . (Harrison, Veroff, & Inter)

uspenskiy, V. A.

nat. Math-Kongressus Heidelberg 1984 (entire)

2

... its equivalence in principle to certain notions introduced previously by Kolmogoroff and Post, and relations of relative enumerability to relative recursive-ness and relative solvability.

University Park, Pa.

**USPANSKIY, V.A.**

Systems of enumerable sets and their numbering. Dokl. AN SSSR  
no.6:1155-1158 D '55. (MLRA 9:4)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
Predstavleno akademikom A.N. Kolmogorovym.  
(Aggregates)

Uspenskiy, V. A.

Uspenskiy, V. A. Gödel's theorem and the theory of algorithms. Dokl. Akad. Nauk SSSR (N.S.) 91, 5737-740 (1953). (Russian) 1 - F/W

The paper considers relations between certain notions of separability of sets of integers on the one hand and incompleteness theorems of formal systems on the other. For example, a calculus containing negation and subject to certain restrictions has no consistent decidable extension (i.e. it is essentially undecidable in the sense of Tarski) if and only if there is no recursive set  $H$  of formulas, such that  $H$  contains all provable formulas and no formulas whose negations are provable. The paper depends of course on an enumeration of formulas of the system and of sets of equations defining partial recursive functions according to Gödel and Kleene. [For further details see the review by Mostowski in J. Symb. Logic, 19, 218-219 (1954). Cf. also Kleene, Nederl. Akad. Wetensch., Proc. 53, 800-802 (1950); MR 12, 71.]  
H. B. Curry (University Park, Pa.)

*Handwritten initials*

УСПЕНСКИЙ-ВА Успенский, В.А.

DYNKIN, Ye.B.; USPENSKIY, V.A.

[Mathematical debates: problems for polychrome coloration, problems from the theory of numbers, and random walks] Matematicheskie besedy: zadachi o mnogo-tsvetnoi raskraske, zadachi iz teorii chisel, sluchainye bluzhdaniia. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1952. 288 p. (MLRA 6:8)  
(Mathematics)

USPENSKIY, V.A.

Problems of mathematical logic in the creation of a machine  
language for an information machine. *Sob. IAN SSSR*  
no.1:5-28 '60. (MIRA 15:2)  
(Information theory)

ABRAMOV, A.A., redaktor; BOLTYANSKIY, V.G., redaktor; VASIL'YEV, A.M., redaktor; MEDVEDEV, B.V., redaktor; MYSHKIS, A.D., redaktor; NIKOL'SKIY, S.M., otvetstvennyy redaktor; POSTHIKOV, A.G., redaktor; PROKHOROV, Yu.V., redaktor; RYBNIKOV, K.A., redaktor; UL'YANOV, P.L., redaktor; ~~USPENSKIY, V.A.~~, redaktor; CHETAYEV, N.G., redaktor; SHILOV, G.Ye., redaktor; SHIRSHOV, A.I., redaktor; SIMKINA, Ye.H., tekhnicheskyy redaktor

[Proceedings of the all-Union Mathematical Congress] Trudy tret'ego vsesoiuznogo Matematicheskogo s"ezda; Moskva iyun'-iul' 1956. Moskva, Izd-vo Akademii nauk SSSR. Vol.2. [Brief summaries of reports] Kratkoe sodержanie obzornykh i sektiionnykh dokladov. 1956. 166 p. (MLRA 9:9)

1. Vsesoyuznyy matematicheskyy s"yezd. 3, Moscow, 1956. (Mathematics)

USPENSKIY, V. A.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress\* (Cont.) Moscow

Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.  
Mukhnik, A. A. (Moscow). Solution of Post's Reduction Problem. 184

Sodnomov, B. S. (Ulan-Ude). Consistency of Projectivity of Some Uncommon Sets. 184-185

Trakhtenbrot, B. A. (Penza). Descriptive Classifications in Recursive Arithmetics. 185

Uspenskiy, V. A. (Moscow). Calculable Operations, Calculable Operators, and Constructively Continuous Functions. 185

There are 2 references, 1 of which is USSR, and another English.

Uspenskiy, V. A. (Moscow). Concept of Program and Computed Operators. 186

Mention is made of Kolmogorov, A. N.  
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\*

USPENSKIY, V. A.

Uspenskiy, V. A. On the theorem of uniform continuity

3  
1-FW

This paper is devoted to the study of the theorem of uniform continuity of a function on a compact set. It is shown that the theorem of uniform continuity is equivalent to the theorem of the existence of a uniform modulus of continuity. The author also considers the question of the uniform continuity of a function on a set which is not compact. It is shown that a function is uniformly continuous on a set if and only if it is uniformly continuous on every compact subset of this set. The author also considers the question of the uniform continuity of a function on a set which is not compact. It is shown that a function is uniformly continuous on a set if and only if it is uniformly continuous on every compact subset of this set.

$\mathcal{N}_2$  and  $\mathcal{B}_{\mathcal{N}_2}$  is the Baire category corresponding to  $\mathcal{N}_2$ . Closed ("constructively closed") subsets of  $I$  are countable unions of open ("constructively open") sets.

The author also considers the question of the uniform continuity of a function on a set which is not compact. It is shown that a function is uniformly continuous on a set if and only if it is uniformly continuous on every compact subset of this set.

11 September 1964 V.A.

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J. D. W.

*Class. 11/11, V. 11*

A certain class of  $N$ -valued functions in  $N_1$  is defined in terms of a metric  $p_X$  on  $N$ .

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*1 1/11*

The set of all functions  $f$  from  $N_1$  to  $N$  is denoted by  $N^N$ . For any function  $f$  from  $N_1$  to  $N$ , we define  $p_X(f, g)$  to be the least  $n$  such that  $f(x) = g(x)$  for all  $x$  with  $p_X(x, 0) < 1/n$ .

It is easy to see that  $p_X$  is a metric on  $N^N$ . We say that a function  $f$  from  $N_1$  to  $N$  is continuous at  $x$  if  $p_X(f(x), f(y)) < \epsilon$  whenever  $p_X(x, y) < \delta$  for some  $\delta > 0$ .

Let  $f$  be a function from  $N_1$  to  $N$ . We say that  $f$  is uniformly continuous if  $f$  is continuous at every  $x$  in  $N_1$ . We say that  $f$  is constructively uniformly continuous if  $f$  is uniformly continuous and  $f$  has a constructive modulus of continuity.

We say that a function  $f$  from  $N_1$  to  $N$  is  $\epsilon$ -continuous if  $p_X(f(x), f(y)) < \epsilon$  whenever  $p_X(x, y) < \delta$  for some  $\delta > 0$ .

With metric  $p_X$  on  $N^N$  to space  $X$  with metric  $p_X$ , is any function  $f$  with arguments and values in  $N$  such that, for every positive  $n$ ,  $p_X(x, y) < 1/n$  implies  $p_X(f(x), f(y)) < 1/n$ . A function is "constructively uniformly continuous" if it has a constructive modulus of continuity.

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Uspenskiĭ, V. A.

3

Every continuous  $N$ -valued ( $J$ -valued) function defined on a compact is uniformly continuous. On the other hand, the structure of a compact is constructed by a finite construction on a constructive object is constructive and finite continuous are in the sense of An. V. A. A counterexample, due to Kleene Proc Internat Congress Math Cambridge, Mass., 1950, v. 1, Amer. Math. Soc., Providence, R.I., 1952, pp. 679-685; MR 13, 422], is defined on the set of general recursive functions with all values either 0 or 1, and is not uniformly continuous even in the usual sense. From this example, a  $J$ -valued counterexample is produced. The author presents a counterexample of his own, simpler than Kleene's.

J-F/W

The foregoing notions are extended by defining a "generalized Baire space  $J$ ", consisting of the infinite sequences whose members belong to  $N \cup \{0\}$  where  $0$  is an object not in  $N$ . The points of  $J$  are identified in the obvious way with the partial  $N$ -valued functions in  $N$ . The  $J$ -valued functions in  $J$  become operators (i.e. functionals). A system of functionals is defined which

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Usp. Lav, V. A.

$J$  becomes a topological space in which  $J$  is imbedded. Definitions of regularity, continuity, and their constructive analogs are similar to the preceding ones. The author identifies the computable operators with the constructively continuous  $J$ -valued functions on  $J$ ; an alternative approach is due to Kleene (Introduction to metamathematics, Van Nostrand, New York, 1952, MR 14, 528).

G. F. Rose (Santa Monica, Calif)

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I-F-W

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PHASE I BOOK EXPLOITATION

SOV/3772

Uspenskiy, Vladimir Andreyevich

Nekotoryye prilozheniya mekhaniki k matematike (Certain Applications of Mechanics to Mathematics) Moscow, Fizmatgiz, 1958. 47 p.  
(Series: Populyarnyye lektsii po matematike, vyp. 27) 35,000 copies printed.

Ed.: A.F. Lapko; Tech. Ed.: V.N. Kryuchkova.

PURPOSE: This book is intended for students of secondary schools (7-10th grades).

COVERAGE: The book analyzes the simple solutions of various mathematical problems, some quite complex, by means of applying concepts from mechanics. It is based on a lecture delivered by the author at Moscow University, February 19, 1956. The author thanks Isaak Moiseyevich Yaglom for his suggestions. There are no references.

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NIKOL'SKIY, S.M., otv.red.; ABRAMOV, A.A., red.; BOLTYANSKIY, V.G., red.;  
VASIL'YEV, A.M., red.; MEDVEDEV, B.V., red.; MYSHKIS, A.D., red.;  
POSTNIKOV, A.G., red.; PROKHOROV, Yu.V., red.; RYBNIKOV, K.A.,  
red.; UL'YANOV, P.L., red.; USPENSKIY, V.A., red.; CHETAYEV, N.G.,  
red.; SHILOV, G.Ye., red.; SHIRSHOV, A.I., red.; GUSEVA, I.N.,  
tekhn.red.

[Proceedings of the Third All-Union Mathematical Congress] Trudy  
tret'ego Vsesoiuznogo matematicheskogo s"ezda. Vol.3 [Synoptic  
papers] Obzornye doklady. Moskva, Izd-vo Akad.nauk SSSR, 1958. 596 p.  
(MIRA 12:2)

1. Vsesoyuznyy matematicheskiy s"yezd. 3d, Moscow, 1956.  
(Mathematics--Congresses)

V.A. Usperchik

16(1)  
AUTHORS:

Skoryy, I.A., University Lecturer, and  
Kopytov, V.D., Scientific Assistant 207/55-50-2-33/35  
Lomonosov - Lectures 1957 at the Mechanical-Mathematical  
Faculty of Moscow State University (Lomonosovskiy  
obshchaya 1957 goda na Mekhaniko-Matematicheskoy fakul'tete  
MSU)

TITLE:

PERIODICAL:

Vestnik Moskovoogo Universiteta: Seriya matematiki, mekhanika,  
astronomiya, fizika, khimiya, 1958, No. 4, PP. 241-246 (USSR)  
The Lomonosov lectures 1957 took place from October 17 -  
October 31, 1957 and were dedicated to the 40-th anniversary  
of the October revolution.

ABSTRACT:

16. A.B. Gorbunov, Lecturer and V.N. Budaev, Lecturer: Difference Methods for the Solution of Hyperbolic Equations.
17. M.S. Bakhvalov: Number of Calculation Operations for the Solution of Elliptic Equations.
18. V.I. Lebedev, Aspirant: Difference Method for the Solution of the Sobolev-System.
19. Professor Ye.B. Dyukin: Markov Processes and Semigroups.
20. A.G. Kostyuchenko, Candidate of Physical-Mathematical Sciences: Decomposition of Differential Operators With Respect to Generalized Eigenfunctions.
21. P.A. Peresin, Candidate of Physical-Mathematical Sciences: Foundations of the Theory of Spherical Harmonics on Manifolds.
22. V.M. Borch, Aspirant: General Properties of Partial Differential Equations.
23. V.A. Usperchik, Candidate of Physical-Mathematical Sciences: On Constructive Mathematical Analysis.
24. P.A. Dilyanov, Lecturer: Several of Terms in Trigonometric Series.
25. I.G. Petrovskiy, Academician and Ye.M. Lomidis, Senior Scientific Assistant: On the Number of Boundary Cycles of a Differential Equation of First Order With a Rational Right Side.

The contents of all the lectures have already been published.

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**AUTHORS:** Kolmogorov, A.N., and Uspenskiy, V.A. SOV/42-13-4-1/11

**TITLE:** On the Definition of the Algorithm (K opredeleniyu algoritma)

**PERIODICAL:** Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr4, pp 3-28 (USSR)

**ABSTRACT:** The authors remark that the present paper is the result of a futile search for a generalisation and extension of the usual definition of the notion "algorithm". The authors' aim is to show that in the momentary state of the science, the most general possible notion of the algorithm is combined quite naturally with the notion of a partially recursive function. § 1 gives the survey of existant definitions and investigates the degree of their logical completeness and their generality. § 2 proposes a new definition of the algorithm (see Kolmogorov Ref 3). § 3 shows that every algorithm which corresponds to this new definition, however, finally ends in the calculation of the values of a partially recursive function. Two appendices give definitions and facts on recursive functions and an example for an algorithm.

There are 22 references, 6 of which are Soviet, 13 American, 2 German, and 1 English.

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LSPENSKIY, V.A.

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PHASE I BOOK EXPLOITATION

SOV/3176

Problemy kibernetiki, vyp. 2 (Problems of Cybernetics, No. 2)  
Moscow, Fizmatgiz, 1959. 323 p. Errata slip inserted. 18,000  
copies printed.

Ed.: A. A. Lyapunov; Compilers-Editors: O. B. Lupanov,  
B. Yu. Pil'chak, S. V. Yablonskiy, and Yu. I. Yanov; Eds.:  
A. A. Konoplyankin, and M. L. Smolyanskiy; Tech. Ed.:  
S. N. Akhlamov.

PURPOSE: The purpose of this collection of articles is to organize  
scientific papers on cybernetics and to unite the efforts and  
interests of Soviet scientists working in this field.

COVERAGE: This is the second volume of "Problemy kibernetiki",  
dealing with problems of biology, mathematics and engineering  
as they relate to cybernetics. The first volume, which appeared  
in 1958, considered problems of programming, machine translation  
and computer design. Future volumes propose to include a still  
greater number of subjects related to cybernetics. The editors  
list 5 recent Soviet books (including 2 translations) dealing

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Problems of Cybernetics (Cont.)

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with cybernetics. They thank the following persons for their help in preparing the book for publication: G. V. Vakulovskaya, T. L. Gavrilova, A. A. Muchnik, B. I. Finikov, M. L. Tsetlin and V. S. Shtarkman. References follow each article.

TABLE OF CONTENTS:

From the Editors

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PART I. GENERAL PROBLEMS

Yablonskiy, S. V. (Moscow). Basic Concepts of Cybernetics

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Uspenskiy, V. A. (Moscow). Problem of Developing a Machine Language for an Information Machine

39

The author discusses problems of introducing automation in the process of searching and retrieving of uniform information on a specific subject in any field of human knowledge. Considering the rapid growth of material, existing methods (catalogs, bibliographies, etc.) are insufficient, inaccurate and too slow. In order to create an information machine to

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